

Transportation Management Center (TMC) Pooled Fund Study: FY 06 Overview

Purpose and Goal of TMC Pooled Fund Study:

The TMC Pooled Fund Study is intended to provide a forum for participants to identify and address operational and human centered issues that are common among agencies that manage and operate TMCs. The study focuses on issues facing traffic signal control system, freeway management system, and multi-modal TMCs, and brings together regional, State, and local traffic management agencies, in concert with the FHWA, to:

1. Identify human-centered and operational issues;
2. Suggest approaches to addressing identified issues;
3. Initiate and monitor projects intended to address identified issues;
4. Provide guidance and recommendations and disseminate results;
5. Provide leadership and coordinate with others with TMC interests; and
6. Promote and facilitate technology transfer related to TMC issues nationally.

Membership:

Membership in the TMC Pooled Fund Study consists of twenty-nine public agencies and the FHWA. Agencies may join at anytime during the year by committing funds at a level deemed appropriate by the members. The study has been approved for 100 percent SP&R funding. Any non-commercial agency or organization that is responsible for the management and operation of any portion of the surface transportation system is welcome to join the study. Such agencies and organizations may include cities, counties, toll authorities, turnpike authorities, port authorities, and corridor coalitions. Current members are the FHWA and the following agencies:

Member	Technical Contact	Member Since
Arizona Department of Transportation	Manny Agah	2000
California Department of Transportation	Monica Kress	2000
Connecticut Department of Transportation	Harold Decker	2000
DC Department of Public Works	Sunny Gyani	2000
Delaware Department of Transportation	Gene Donaldson	2000
Florida Department of Transportation	Lap Hoang	2000
Georgia Department of Transportation	Mark Demidovich	2001
I-95 Corridor Coalition	Henry de Vries	2001
Idaho Transportation Department	Bob Koeberlein	2005
Illinois Department of Transportation	Jeffrey Galas	2000
Indiana Department of Transportation	Mark Newland	2000
Kansas Department of Transportation	Michael Floberg	2000
Kentucky Transportation Cabinet	Leon Walden	2004
Michigan Department of Transportation	Mia Silver	2001
Minnesota Department of Transportation	Nick Thompson	2001
Missouri Department of Transportation	Lisa Vieth	2000
Nebraska Department of Roads	Jim McGee	2001
Nevada Department of Transportation	John Domina	2000
New Jersey Department of Transportation	Michael Pilsbury	2001
New York Department of Transportation	John Bassett	2000
North Carolina Department of Transportation	Kelly Damron	2005
Pennsylvania Department of Transportation	Doug Tomlinson	2001
Rhode Island Department of Transportation	Cynthia Levesque	2000
Tennessee Department of Transportation	Don Dahlinger	2006
Texas Department of Transportation	Al Kosik	2002
Utah Department of Transportation	David Kinnecom	2003
Virginia Transportation Research Council	Catherine McGhee	2000
Washington Department of Transportation	Vinh Dang	2002
Wisconsin Department of Transportation	John Corbin	2002

Process to Identify, Select, and Initiate New Projects:

The members meet annually to review progress on current projects, and to identify and select new projects. Projects are selected based on needs that are identified through an iterative process that involves the TMC Pooled Fund Study member input, state-of-practice reviews, and issues identified by professional organizations. Based on the prioritized list of needs, project proposals are developed for further consideration and reviewed by members in advance of the annual meeting. At the annual meeting these project proposals are reviewed, revised, prioritized, and selected through an iterative process. Consensus building techniques are used to ensure that the needs identified by all members are accommodated to the extent possible.

The projects that are selected and advanced are based on priority ranking established by the members and resources that are available to the study for that year. Project groups that consist of representatives from the member agencies guide the development of the scope of the project, provide technical assistance, and direction after the annual meeting. This involvement includes any further revision of the project scope, clarification of project objectives, development of the statement of work, contractor selection, technical review and direction throughout project development and execution.

Completed and Current Projects:

Twenty-six projects have been selected over the past six years. Brief descriptions of the completed and current projects are provided in the following paragraphs. Additional information on these projects can be found on the TMC Pooled Fund Study website at <http://tmcpfs.ops.fhwa.dot.gov/>.

Completed Projects:

TMC Operator Requirements and Position Descriptions Phase 1: This project developed a matrix that relates TMC functions to operator knowledge, skill, and ability requirements. Agencies could use the matrix and other information developed by this project to assist them with planning and designing TMCs; developing knowledge, skills, and abilities (KSA's) required for TMC operators; establishing job classifications; developing position descriptions; and identifying training needs.

Available Products:

- § TMC Operator Requirements and Position Descriptions Technical Document.
- § TMC operator KSA's matrix in MS Excel spreadsheet format.

Changeable Message Sign Operation and Messaging Handbook: The project developed a handbook that provides guidance and identifies best practices on the operation and display of messages on changeable message signs (CMS). This document presents the basis around which recommended procedures and best practices for the operation, development, and display of messages on CMS.

Available Products:

- § CMS Operation and Messaging Handbook.
- § White paper on CMS operational and messaging issues requiring additional research or integration into the MUTCD.

Transportation Management System Maintenance Concept and Plans: This project developed a technical document that provides detailed information to guide agencies in systematically integrating maintenance into their program planning, resource allocation, policies, system planning and design, and other related activities that occur throughout the life cycle of their transportation management systems.

Available Products:

- § Guidelines for Transportation Management Systems Maintenance Concept and Plans.

Configuration Management for Transportation Management Systems: This project developed a handbook that provides guidance and best practices on configuration management (CM) control processes, accounting system, managing a CM program and activities, job and/or position requirements, tools, and how to apply these techniques and concepts throughout the life cycle of a system.

Available Products:

- § Configuration Management for Transportation Management Systems Handbook.
- § CM for Transportation Management Systems Primer.
- § CM for Transportation Management Systems Presentation.
- § Fact Sheet and Brochure identifying benefits and value of CM.

Managing Travel for Planned Special Events: This project developed a handbook that provides guidance and best practices related to the proactive management of travel for planned special events. The intended audience of this handbook is the team of individuals (e.g., transportation agencies, service providers, private sector companies, and other interests) that would be involved in or responsible for the advanced planning, stakeholder coordination, and management of day-of-event activities for a range of different types of planned special events.

Available Products:

- § Managing Travel for Planned Special Events Handbook.
- § Fact Sheet, Brochure, and FAQs.
- § Presentation.

Current Projects:

Coordinated Freeway and Surface Street Operational Plans and Procedures: The objective of this project is to develop a document that provides technical guidance and recommended practices on how to: (1) prepare plans, coordinate activities, develop procedures, and protocol to use in managing travel, controlling traffic, and providing services related to coordinating travel on freeways and arterial roadways; and (2) identify the institutional issues, agreements, technologies, support services, traffic control plans, analysis techniques and tools, support programs (e.g., potential further study, training, technical guidance), and other factors that may be appropriate to consider in the various phases associated with planning, managing travel, and providing services.

Milestones & Products:

- § Draft Technical Document – available on the project web site.
- § Final Technical Document – December 2005.

Developing and Using Concept of Operations for Transportation Management Systems: The objective of this project is to develop a document that provides technical guidance and recommended practices on the need for and how to develop and use a concept of operations throughout the life cycle of a TMC.

Milestones & Products:

- § Final Technical Document – available on the project web site.
- § Primer and Outreach Material (Fact Sheet, Brochure, Presentation) – December 2005.

Transportation Management Center Business Planning and Plans Handbook: The purpose of this project is to develop a handbook that provides guidance and best practices on how to develop a TMC business plan. The handbook will also outline the various business planning models that have been successfully employed by transportation agencies to ensure the long-term sustainability of transportation management centers and associate ITS applications.

Milestones & Products:

- § Final Technical Document – December 2005.
- § Primer and Outreach Material (Fact Sheet, Brochure, Presentation) – December 2005.

Impacts of Dynamically Displaying Messages on Changeable Message Signs: The purpose of this project is to develop preliminary guidance to practitioners for dynamically displaying messages on CMS and identify and recommend changes or new provisions to the MUTCD. This project will build upon the TMC Pooled Fund Study project *Changeable Message Sign Operation and Messaging*.

Milestones & Products:

- § Final Research Report – November 2005.
- § White Paper identifying recommended practices and potential changes to make to the MUTCD – November 2005.

TMC Operator Requirements and Position Descriptions Phase 2 – Developing Interactive Software: The purpose of this project is to develop an interactive software tool that will embody the content material developed in the previous project, supplemented as necessary, and provide the functionality needed by TMC managers and other users to support development of useful position requirements and descriptions for TMC operator positions.

Milestones & Products:

- § Final Interactive Software Tool – October 2005.
- § Final Project Report – October 2005.
- § Revised Phase 1 Document – October 2005.

Transportation Management Center Operations Manual: The purpose of this project is to develop a technical document that provides guidance and recommended practices to assist in initiating, developing, maintaining, and using TMC Operations Manuals. The technical document is intended to serve as a detailed reference that would address the concepts, methods, processes, tasks, techniques, and other related issues for practitioners to consider in developing an operations manual for a TMC.

Milestones & Products:

- § Final Technical Document – November 2005.
- § Primer and Outreach Material (Fact Sheet, Brochure, Presentation) – December 2005.

TMC Performance Monitoring, Evaluation and Reporting Handbook: The purpose of this project is to develop a handbook that provides guidance and recommended practices on the need for, how to initiate, sustain, and use information generated from monitoring, evaluating, and reporting on the performance of a Transportation Management Center (TMC) and its roles, responsibilities, functions, and support services as related to traffic management.

Milestones & Products:

- § Final Technical Document – December 2005.
- § Primer and Outreach Material (Fact Sheet, Brochure, Presentation) – December 2005.

TMC Staffing and Scheduling for Day-to-Day Operations: The purpose of this project is to develop a technical document and a software tool that will assist TMC managers in making staff workload and schedule decisions, performing future staffing forecasts, estimating timelines for personnel procurement and recruiting, and analyzing staffing costs and productivity.

Milestones & Products:

- § Final Technical Document – January 2006.
- § Outreach Material (Fact Sheet, Brochure, Presentation) – January 2006.
- § Software Tool – January 2006.

TMC Clearinghouse Development and Initiation: The purpose of this project is to establish a central clearinghouse (one stop) located on an internet web site that houses a comprehensive database of TMC related resources and will provide resources at one central location. The project would also be intended to research the staff resources, warehousing needs and facilitating the information exchange protocols for the clearinghouse.

Milestones & Products:

- § TMC Clearinghouse Web Site – April 2006.
- § Outreach Material (Fact Sheet, Brochure, Presentation) – April 2006.

TMC Pilot Workshop Development and Delivery: This project is intended to promote the TMC Pooled Fund Study effort and increase the awareness of TMC Pooled Fund Study products and tools to a broader audience base. The focus of this project is holding a pilot workshop in 2006. Particular themes of the workshop will focus on current and future TMC Pooled Fund Study activities and other topics that are recommended.

Milestones & Products:

- § Project Initiation – Anticipated in Winter 2005.
- § Request Proposals for Delivery – Spring 2006.
- § Workshop Materials – Summer 2006.
- § TMC Workshop – Summer/Fall 2006.

Statewide, Multi-State, and Regional TMC Concept of Operations and Requirements: The overall objective of this project is to develop a document that provides technical guidance and recommended practices on what are regional/statewide/multi-state TMCs; pros and cons of the concept; how to develop and use a concept of operations and requirements for regional, statewide, and multi-state TMCs; policy, institutional and technical issues to consider; resources required; stakeholders to involve; process to develop and implement a statewide/multi-state TMC; and operations and maintenance considerations.

Milestones & Products:

- § Anticipated project initiation – November 2005.
- § Products: technical document, fact sheet, and technical presentation.

Procuring, Managing, and Evaluating the Performance of Contracted TMC Services: The major focus of this project is a scan of current TMC owners to determine outsourcing activities and the methodologies being utilized. A technical document will be developed to provide guidance and recommended practice to TMC owners and managers to determine their outsourcing needs, activities and the methodologies being utilized to operate and maintain the transportation management systems.

Milestones & Products:

- § Anticipated project initiation – Winter 2005.
- § Products: technical document, fact sheet, tri-fold brochure, and technical presentation.

Integration of TMC and Law Enforcement – Needs Assessment: This project will assess the current practices and identify institutional, operational and technical issues and challenges that all involving agencies are facing with integrating TMCs and law enforcement. The results of this effort will lead to identification of a list of topics and issues to be addressed and a series of next steps to be considered in a further study that is intended to develop a product that will provide necessary guidance to address agencies' needs.

Milestones & Products:

- § Anticipated project initiation – Winter 2005.
- § Product: A Findings Report.

Recovery and Redundancy of TMCs: This project will scan and synthesize current practices and state of the practices as related to redundancy and recovery of TMCs. This project will also highlight technical issues to considered, lessons learned, and recommended practices on the concepts, methods, and procedures for planning, design, develop and implement redundancy of and recovery plans for TMCs.

Milestones & Products:

- § Anticipated project initiation – Winter 2005.
- § Products: synthesis report, fact sheet, and technical presentation.

TMC Clearinghouse Support Services, Phase 2: The purpose of this project is to provide continued and improved support services for the TMC Clearinghouse that was created in the initial phase of the project. This phase 2 project will also evaluate the feedback and recommend enhancement from the user and improve the features and functions of the clearinghouse as appropriate. In addition, this project will

involve the support to facilitate outreach and awareness of TMC Clearinghouse to a broader audience base.

Milestones & Products:

- § Anticipated project initiation – at end of initial project phase (expected in May 2006).
- § Products: enhanced TMC Clearinghouse, evaluation report on user feedback, outreach and marketing material (fact sheet, brochure, and presentation).

2006 Projects:

The following six projects have been selected to initiate in 2006:

- Methodologies to Measure and Quantify TMC Benefits
- Driver Use of Real-Time En-Route Travel Time Information
- Developing Travel Time Information
- Requirements and Position Descriptions for TMC Support Staff
- Techniques for Managing Service Patrol Operations
- Best Practices for Road Condition Reporting Systems

Program Administration:

As part of its contribution to the TMC Pooled Fund Study, the FHWA provides the staff and resources that are necessary to successfully support various projects and activities. As a result, the funds that are provided by the members go entirely to the projects that are selected and products that are produced or services provided. FHWA resources are then used for providing leadership, direction, technical expertise, and project management to the various activities that are pursued or projects initiated. Contract solicitations, when necessary, will be issued through normal FHWA procurement procedures.

Governance and Charter:

A charter, ratified by the members, governs the following aspects of the TMC Pooled Fund Study: membership; project selection; project management, coordination, and solicitation; policies and procedures; fiscal management; and overall TMC Pooled Fund Study management. The complete TMC Pooled Fund Study charter is available at <http://tmcdfs.ops.fhwa.dot.gov/>.

FHWA Contacts:

For additional information on the TMC Pooled Fund Study contact Raj Ghaman at (202) 493-3270, raj.ghaman@fhwa.dot.gov; or Tom Granda at (202) 493-3365, thomas.granda@fhwa.dot.gov. To request documents or material that are not available on the TMC Pooled Fund Study website, contact Ming-Shiun Lee at (612) 373-6335, ming_shiun_lee@urscorp.com.